Package 'learnrbook'

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Type Package

Title Datasets and Code Examples from P. J. Aphalo's ``Learn R'' Book

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Description Data, scripts and code from chunks used as examples in the book
``Learn R: As a Language'' by Pedro J. Aphalo.
ISBN 9780367182533 (pbk); ISBN 9780367182557 (hbk); ISBN 9780429060342 (ebk).

License GPL (>= 2)

LazyLoad yes

LazyData yes

ByteCompile yes

Depends R (>= 3.6.0)

Suggests roxygen2 (>= 6.0.1), knitr (>= 1.15.1), devtools (>= 1.12.0),
rmarkdown (>= 1.5)

URL https://docs.r4photobiology.info/learnrbook/

BugReports https://github.com/aphalo/learnrbook-pkg/issues

Encoding UTF-8

VignetteBuilder knitr

RoxygenNote 7.2.3

NeedsCompilation no

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Repository CRAN

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R topics documented:

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learnrbook-package   *learnrbook: Datasets and Code Examples from P. J. Aphalo's "Learn R" Book*

Description

Data, scripts and code from chunks used as examples in the book "Learn R: As a Language" by Pedro J. Aphalo. ISBN 9780367182533 (pbk); ISBN 9780367182557 (hbk); ISBN 9780429060342 (ebk).

Details

Package 'learnr' is a companion to the book Aphalo, P. (2020). Learn R. New York: Chapman and Hall/CRC, ISBN 9780367182533". This package supplies a list of all the packages used in the book. It also contains all the original data sets used in the book as well as code for scripts and code chunks included in the book. Please, consult the "User Guide" under vignettes for instructions.

Author(s)

Maintainer: Pedro J. Aphalo <pedro.aphalo@helsinki.fi> (ORCID)

See Also

Useful links:

- https://docs.r4photobiology.info/learnrbook/

- Report bugs at https://github.com/aphalo/learnrbook-pkg/issues

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| clean1000.df | *Subset of RNAseq gene expression data* |

Description

A data set containing the results from the analysis of data from RNAseq. Subset of 1000 genes.

Usage

```
clean1000.df
```

Format

A data.frame with 5 columns and 1000 row names.

Details

The variables are as follows:

- logFC (numeric)
- logCPM (numeric)
- LR (numeric)
- Pvalue (numeric)
- outcome (-1, 0, +1)

Note

A subset of size 1000 selected by random sampling,

References

Neha Rai et al. (2020) Plant Cell and Environment, https://doi.org/10.1111/pce.13752.

| clean5000.df | *Subset of RNAseq gene expression data* |

Description

A data set containing the results from the analysis of data from RNAseq. Subset of 5000 genes.

Usage

```
clean5000.df
```

Format

A data.frame with 5 columns and 5000 row names.

Details

The variables are as follows:

- logFC (numeric)
- logCPM (numeric)
- LR (numeric)
- Pvalue (numeric)
- outcome (-1, 0, +1)

Note

A subset of size 5000 selected by random sampling,

References

Neha Rai et al. (2020) Plant Cell and Environment, https://doi.org/10.1111/pce.13752.

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pkgs_all   *Packages used in book "Learn R: As a Language"*

Description

Character vector of package names for the whole book.

Usage

```
pkgs_all
```

Format

A vector of character strings.

Examples

```
pkgs_all
```

| pkgs_ch_data | *Packages used in ch. 6 of book "Learn R: As a Language"* |

Description

Character vector of package names for chapter 6 "New grammars of data".

Usage

```
pkgs_ch_data
```

Format

A vector of character strings.

Examples

```
pkgs_ch_data
```

| pkgs_ch_data_io | *Packages used in ch. 8 of book "Learn R: As a Language"* |

Description

Character vector of package names for chapter 8 "Data import and export".

Usage

```
pkgs_ch_data_io
```

Format

A vector of character strings.

Examples

```
pkgs_ch_data_io
```

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pkgs_ch_graphics   *Packages used in ch. 7 of book "Learn R: As a Language"*

Description

Character vector of package names for chapter 7 "Grammar of graphics".

Usage

```
pkgs_ch_graphics
```

Format

A vector of character strings.

Examples

```
pkgs_ch_graphics
```

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viikki_d29.dat   *Wind direction and speed data*

Description

A data set containing wind speed and direction measured in Viikki, Helsinki, Finland with a Vaisala Weather Transmitter WXT530 (sonic anemometer) during 2016-07-29 at 1 min interval.

Usage

```
viikki_d29.dat
```

Format

A tibble with 3 columns and 1440 rows.

Details

The variables are as follows:

- solar_time (yyyy-mm-dd hh:mm:ss)
- WindDir_D1_WVT (degrees)
- WindSpd_S_WVT (m/s)

References

P. J. Aphalo, unpublished data.

Examples

```
names(viikki_d29.dat)
viikki_d29.dat
```

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weather_wk_25_2019.tb   *Weather data*

Description

A data set containing weather data measured in Viikki, Helsinki, Finland. Values for all variables are means of 12 readings at 5 seconds intervals. Sun angles were computed with R package 'photobiology'.

Usage

```
weather_wk_25_2019.tb
```

Format

A tibble with 21 columns and 10080 rows.

Details

The variables are as follows:

- time (yyyy-mm-dd hh:mm:ss)
- PAR_umol (umol m-2 s-1)
- PAR_diff_fr (/1)
- global_watt (W m-2)
- day_of_year
- month_of_year
- month_name
- calendar_year
- solar_time (h)
- sun_elevation (degrees above horizon)
- sun_azimuth (degrees)
- was_sunny (T/F)
- wind_speed (m s-1)
- wind_direction (degrees)
- air_temperature_C (C)
- air_RH (
- air_DP (C)

- air_pressure
- red_umol (umol m-2 s-1)
- far_red_umol (umol m-2 s-1)
- red_far_red (ratio)

References

P. J. Aphalo, unpublished data.

Examples

```
names(weather_wk_25_2019.tb)
weather_wk_25_2019.tb
```

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